

Abstract of the Disclosure

Disclosed are apparatus and methods for manufacturing complex gears includes the creation of a data set to control a robotic machine tool enabling the tool to machine the contours of the gears accurately after the gear has been cut. Each gear is mounted to an indexable chuck which is used to position the gear for machining operations such as chamfering and deburring that heretofore have been done by hand. A machine cabinet allows debris from machining to be recovered by a vacuum-operated system and an air-cooling system cools the gear during machining without requiring the use of cooling oils or other liquids.